

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Previously Presented): A non-aqueous electrolytic secondary battery comprising:

a casing comprising a sheet with a thickness of 0.5 mm or less which has a resin layer, an electrode group having:

a positive electrode,

a negative electrode which contains a material capable of storing and releasing lithium ions, and

a separator disposed between the positive electrode and the negative electrode; and

a non-aqueous electrolytic solution containing at least one non-aqueous solvent and at least one lithium salt dissolved in said solvent which impregnates said electrode group;

at least 50% of the total volume of the non-aqueous solvent is γ -butyrolactone,

at least 10% of the total volume of the non-aqueous solvent is ethylene carbonate, and

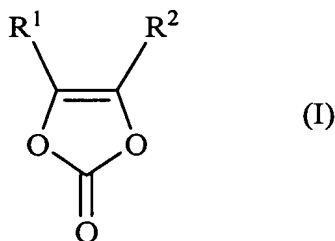
wherein the non-aqueous solvent contains

0.01 to 5% by weight of at least one vinylene carbonate compound represented by the formula (I),

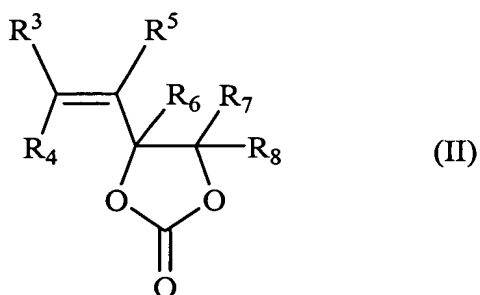
0.01 to 5% by weight of at least one vinylethylene carbonate compound represented by the formula (II), and

the total amount of the vinylene carbonate compound and the vinylethylene carbonate compound is 0.02 to 6% by weight;

wherein formulas (I) and (II) are:



wherein R₁ and R₂ each independently represent a hydrogen atom or an alkyl group having 1 to 4 carbon atoms,



wherein R₃, R₄ and R₅ each independently represent a hydrogen atom or an alkyl group having 1 to 4 carbon atoms, and R₆, R₇ and R₈ each independently represent a hydrogen atom, an alkyl group having 1 to 4 carbon atoms or an alkenyl group having 2 to 7 carbon atoms.

Claim 2 (Currently Amended): A non-aqueous electrolytic solution for a secondary battery, ~~where the secondary battery~~ which comprises:

~~a casing comprising a sheet with a thickness of 0.5 mm or less which has a resin layer,~~
~~an electrode group having a positive electrode,~~
~~a negative electrode which contains a material being capable of storing and releasing lithium ions, and~~
~~a separator disposed between the positive electrode and the negative electrode, and~~
~~a non-aqueous electrolytic solution,~~

containing at least one non-aqueous solvent and at least one lithium salt dissolved in said solvent which impregnates said electrode group; wherein:

at least 50% of the total volume of the non-aqueous solvent is γ -butyrolactone,

at least 10% of the total volume of the non-aqueous solvent is ethylene carbonate, and

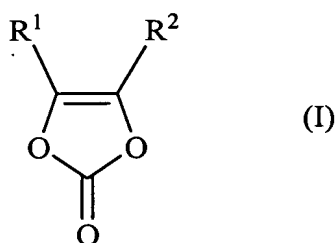
wherein the non-aqueous solvent contains:

0.01 to 5% by weight of at least one vinylene carbonate compound represented by the formula (I),

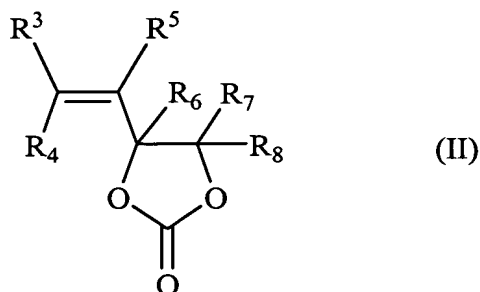
0.01 to 5% by weight of at least one vinylene carbonate compound represented by the formula (II), and

the total amount of the vinylene carbonate compound and the vinylene carbonate compound is 0.02 to 6% by weight;

wherein formulas (I) and (II) are:



wherein R_1 and R_2 each independently represent a hydrogen atom or an alkyl group having 1 to 4 carbon atoms, and



wherein R_3 , R_4 and R_5 each independently represent a hydrogen atom or an alkyl group having 1 to 4 carbon atoms, and R_6 , R_7 and R_8 each independently represent a

hydrogen atom, an alkyl group having 1 to 4 carbon atoms or an alkenyl group having 2 to 7 carbon atoms; and

wherein said secondary battery comprises:

a casing comprising a sheet with a thickness of 0.5 mm or less which has a resin layer,

an electrode group having a positive electrode,

a negative electrode which contains a material being capable of storing and releasing lithium ions, and

a separator disposed between the positive electrode and the negative electrode, and

said non-aqueous electrolytic solution.

Claim 3 (Previously Presented): The non-aqueous electrolytic secondary battery of Claim 1, wherein said casing comprises a sheet having a thickness ranging from 0.05 to 0.3 mm.

Claim 4 (Previously Presented): The non-aqueous electrolytic secondary battery of Claim 1, wherein said casing comprises a sheet having a thickness ranging from 0.05 to 0.15 mm.

Claim 5 (Previously Presented): The non-aqueous electrolytic secondary battery of Claim 1, wherein the positive electrode comprises an active material selected from the group consisting of at least one of lithium cobalt oxide, lithium nickel oxide and lithium manganese complex oxides.

Claim 6 (Previously Presented): The non-aqueous electrolytic secondary battery of Claim 1, wherein said non-aqueous solvent contains γ -butyrolactone in an amount of at least 65 to 85% by volume.

Claim 7 (Previously Presented): The non-aqueous electrolytic secondary battery of Claim 1, wherein said non-aqueous solvent contains 0.1 to 3% of the vinylene carbonate compound of formula (I) and 0.1 to 3% of the vinylethylene carbonate compound of formula (II) based on the weight of the nonaqueous solvent.

Claim 8 (Previously Presented): The non-aqueous electrolytic secondary battery of Claim 1, wherein said non-aqueous solvent contains vinylene carbonate or 4,5-dimethylvinylene carbonate, or both.

Claim 9 (Previously Presented): The non-aqueous electrolytic secondary battery of Claim 1, wherein said non-aqueous solvent contains at least one of 4-vinylethylene carbonate, 4-methyl-4-vinylethylene carbonate, or 4,5-divinylethylene carbonate.

Claim 10 (Currently Amended): The non-aqueous electrolytic ~~solvent~~ solution of Claim 2, wherein said non-aqueous solvent ~~which~~ contains γ -butyrolactone in an amount of at least 65 to 85% by volume.

Claim 11 (Currently Amended): The non-aqueous electrolytic ~~solvent~~ solution of Claim 2, wherein said non-aqueous solvent contains 0.1 to 3% of the vinylene carbonate compound(s) of formula (I), and wherein said compound of formula (I) is vinylene carbonate, or 4,5-dimethylvinylene carbonate, or both.

Claim 12 (Currently Amended): The non-aqueous electrolytic ~~solvent~~ solution of Claim 2,

wherein said non-aqueous solvent contains 0.1 to 3% of the vinylethylene carbonate compound(s) of formula (II) and,

wherein said compound(s) of formula (II) is selected from the group consisting of 4-vinylethylene carbonate, 4-methyl-4-vinylethylene carbonate, or 4,5-divinylethylene carbonate.

13 (Currently Amended): The non-aqueous electrolytic ~~solvent~~ solution of Claim 2, ~~which~~ wherein said non-aqueous solvent contains 0.1 to 3% of the vinylene carbonate compound of formula (I) and 0.1 to 3% of the vinylethylene carbonate compound of formula (II) based on the weight of the nonaqueous solvent.